

The logo features the Georgia Institute of Technology crest, a stylized 'GT' monogram, and the text 'Georgia Tech' in a bold, sans-serif font. The background of the logo is a semi-transparent, olive-green image of a mechanical component, possibly a valve or part of a machine, with various pipes and a circular opening.

**Georgia
Tech**

CREATING THE NEXT

ME & Interdisciplinary Capstone Design

Common Studio Session #2

Date 01/22/2024

REMINDERS/AGENDA



- ALL Links and Slides are posted here: <http://mecapstone.gatech.edu/students>
- Common MS Teams Support Network: <https://mecapstone.gatech.edu/support>
- Team – Project – Faculty Assignments available at: <https://mecapstone.gatech.edu/assignments>

Course Logistics (starting this week)

- **Studios** on Mondays for all ME and MSEs, except those with Prof. Li as primary advisor: 12:30 – 2:25pm in CULC #152
- **Labs** on Wednesdays 12:30 – 3:15pm at location TBD
 - Labs are scheduled to work with your team AND discuss your project progress with your team's advisor.
 - Typically, teams meet with their advisor 30-60 minutes per week during this time slot
 - Specific plan (meeting time, date and activity) MAY VARY based on the Instructor assigned to your team

NDA and IP

NDA:

- In rare circumstances, a Company's proprietary information must be shared with Georgia Tech, such as with the faculty coordinators and/or Project Team's faculty mentor. In such cases, a confidentiality agreement with the Georgia Institute of Technology (GIT) might have been executed. Student teams working on such projects will be required to accept the GT NDA form (which will be sent after the project is assigned to the team)
- Some projects might only need an NDA between the student team and the company. In such cases, the student team would be required to accept an NDA directly with the company. The students will have to make sure to not disclose any company confidential information to anyone other than their own team (not even their faculty advisor).

IP:

- For the course, students working on the project typically own the resulting IP that they create, and not Georgia Tech. Hence, students (and not GT) can assign any resulting IP to the company.
- Most **sponsors prepare an IP assignment document** for students to accept at the start of the project.

Project Prototyping Expense Reimbursement

- EVERY team in ME Capstone design will receive reimbursement from the School and/or the sponsor
- For ME only and ME majority teams, review the process overview here: <https://mecapstone.gatech.edu/resources/reimbursement-guidelines/>
 - Your team's reimbursement limits are posted here: <https://mecapstone.gatech.edu/assignments>
- Only ONE person per team is reimbursed: Assign a Finance Manager within your team
- Receipts must show payment: last 4 digits of CC
- Receipt with ANY personal items will be rejected
- Final Reimbursement Package Due: Friday after the expo

ME Capstone Design Support Team



Kinsey Herrin
Consultant – Biomed



Jacob Blevins
Equipment Library
Consultant – Mechatronics, Robotics



Jacob Tompkins
Consultant – Machining



Ashley Andrews
Machining Mall Liaison



Clint Rinehart
Professional 3D Printing



Andrea Dominguez
Reimbursements

Facilities

• Montgomery Machining Mall

<https://www.me.gatech.edu/montgomery-machining-mall>

Training

The Montgomery Machining Mall offers training each semester. The MMM prioritizes training in the following order: undergrad coursework (Capstone), graduate research, undergrad research, and those looking to learn how to use one or more of the machines. Please register at the link below and if you have any questions contact the MMM staff.

[Register for Training](#)

Basic Safety Items to Remember

1. Ask for instructions if you are not familiar with the particular machine, tool, or procedure.
2. Safety glasses **MUST BE WORN AT ALL TIMES**.
3. Do not operate machinery with loose clothing or jewelry.
4. Long hair must be tied back and contained.
5. No open toed shoes allowed.
6. Clean machinery every time you use it.
7. The two person rule is in effect.
8. Report any machine that has been damaged. This may keep the next user from getting hurt.
9. Please help keep this shop clean and safe. If you abuse the shop, you will lose your privilege to use it.



Electronics Fabrication/Testing

www.me.gatech.edu/facilities/electronic_lab

ME Electronics Lab

2nd floor MRDC, next to IDEA Lab



Andrew Keller

Kyle French
Electrical Engineer
kyle.french@me.gatech.edu

Amy Wang

ECE Senior Design Lab

Van Leer



Staff Contact: James Steinberg
james.steinberg@ece.gatech.edu

Flowers Invention Studio

- <https://inventionstudio.gatech.edu/>
- Starting today for Spring 2024
- **Hours:** Monday - Friday between 11:00 AM and 5:00 PM
- Visit the website for online training component and then in-person for hands-on training
 - DO NOT wait to get trained on tools in the space.
- Contact: Dr. Amit Jariwala (amit.Jariwala@gatech.edu)



The Hive – Interdisciplinary Design Commons

- <https://hive.ece.gatech.edu/>



MSE Mill

- <https://mill.mse.gatech.edu/>



Capstone Design is...

Product v/s Process

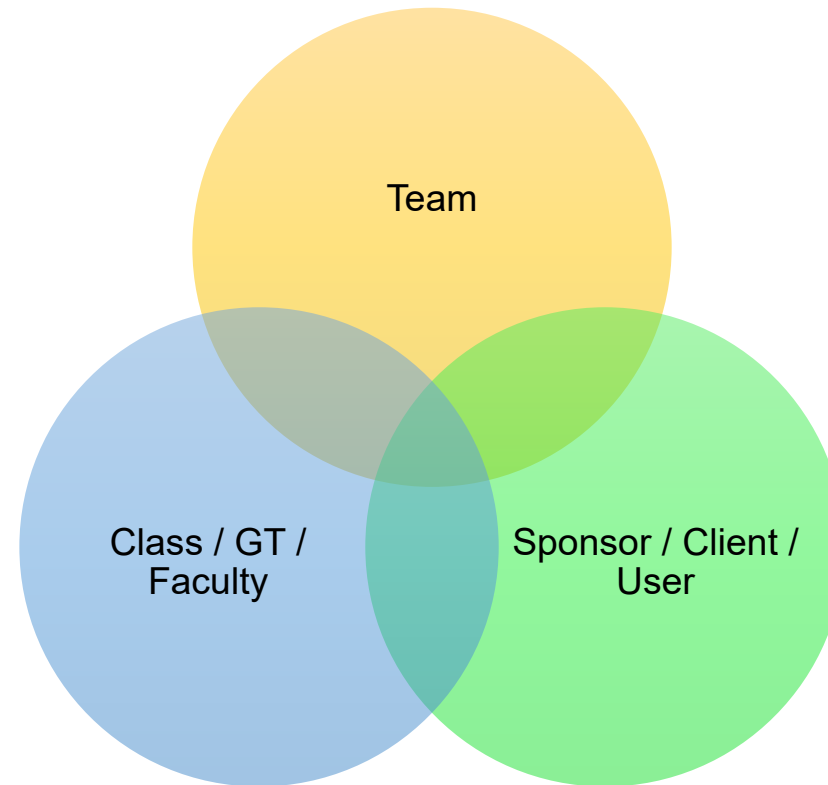


Process to develop a Product

Course Expectations

- **CAPSTONE** – Synthesize knowledge & skills acquired in UG curriculum
 - Identify & apply relevant topics from **earlier courses**
 - Critically **evaluate** designs
- **DESIGN** – Address broad range of requirements
 - *Identify and specify design **requirements***
 - *Apply **systematic design process** to develop a design from problem to a detailed, proof-of-concept design meeting all of the specifications*
- **PROFESSIONAL EXPERIENCE**
 - *Clearly **communicate/document** design ideas and information*
 - *Work collaboratively and responsibly as a **team***
 - *Demonstrate ability to facilitate own learning by identifying design issues and questions that require additional investigation beyond basic undergraduate curriculum knowledge, then formulating appropriate courses of action.*

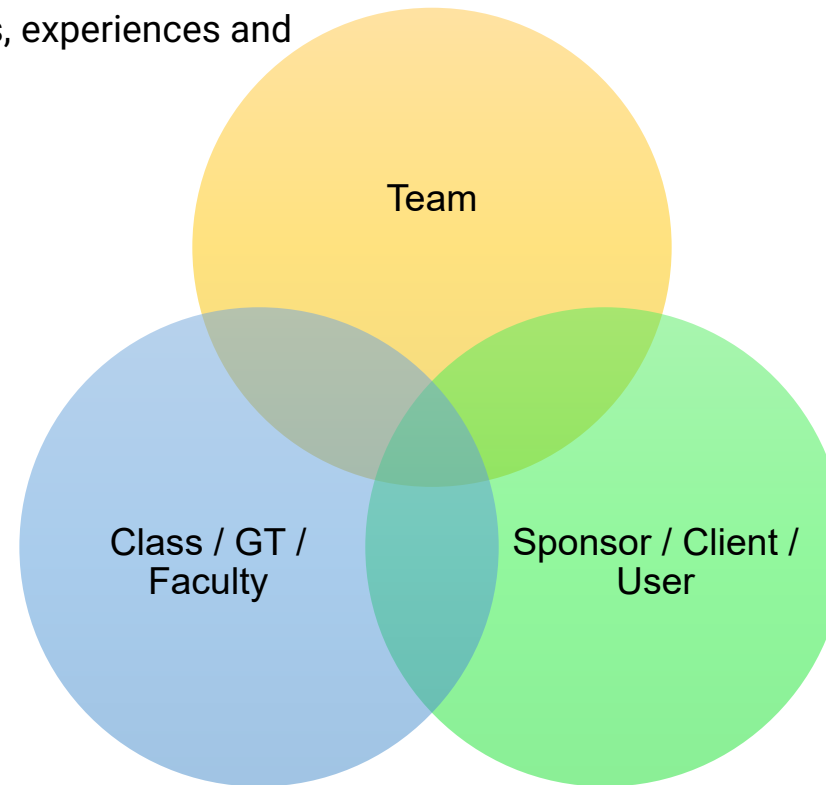
Project Stakeholders and their impact on Scope



Project Stakeholders and their impact on Scope

TEAM

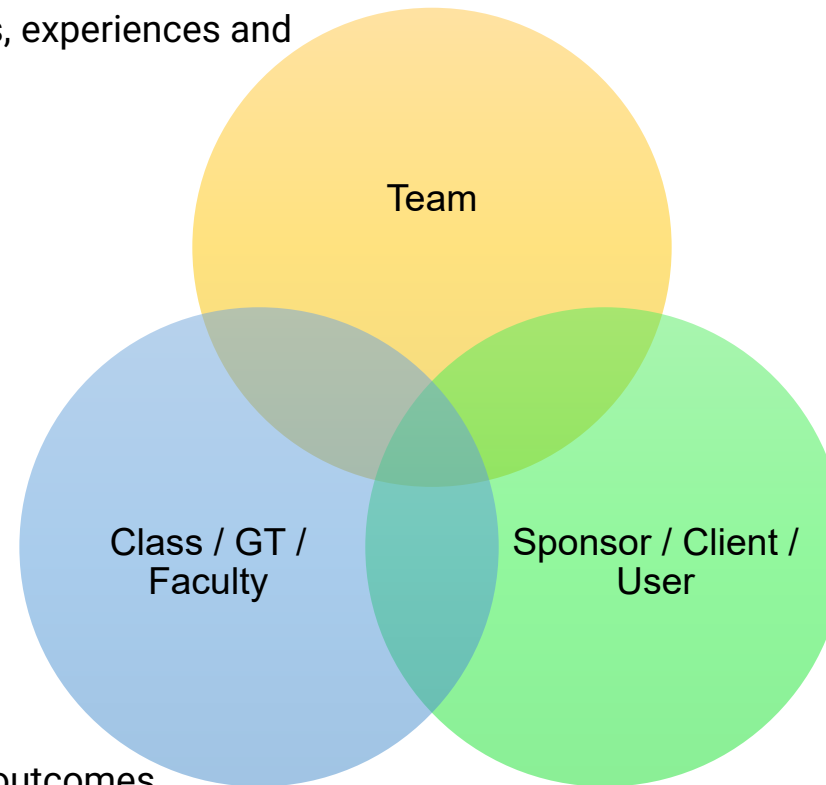
1. WHY - Discuss personal goals, what you wish to learn and gain
2. Document individual and team strengths, experiences and abilities
3. Identify and assign specific positions
 - Project Manager
 - Sponsor Liaison
 - Finance Manager
 - Expo Liaison
 - Content Manager
4. Develop common team goals



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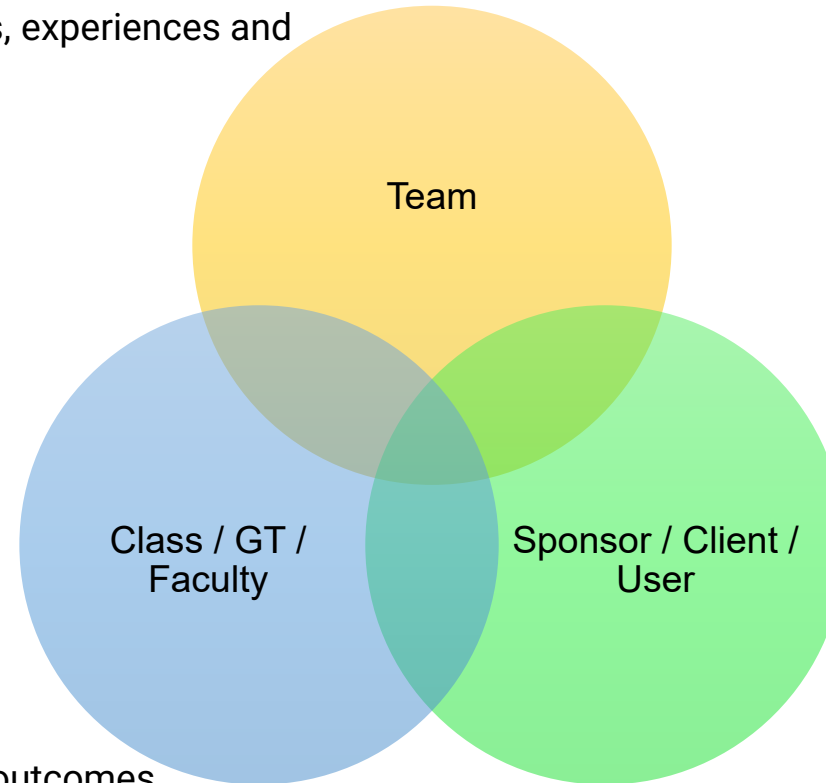
CLASS

1. WHY – Understand course and student outcomes
2. Review course final deliverables
3. Review semester timeline
4. Understand available resources and access protocols

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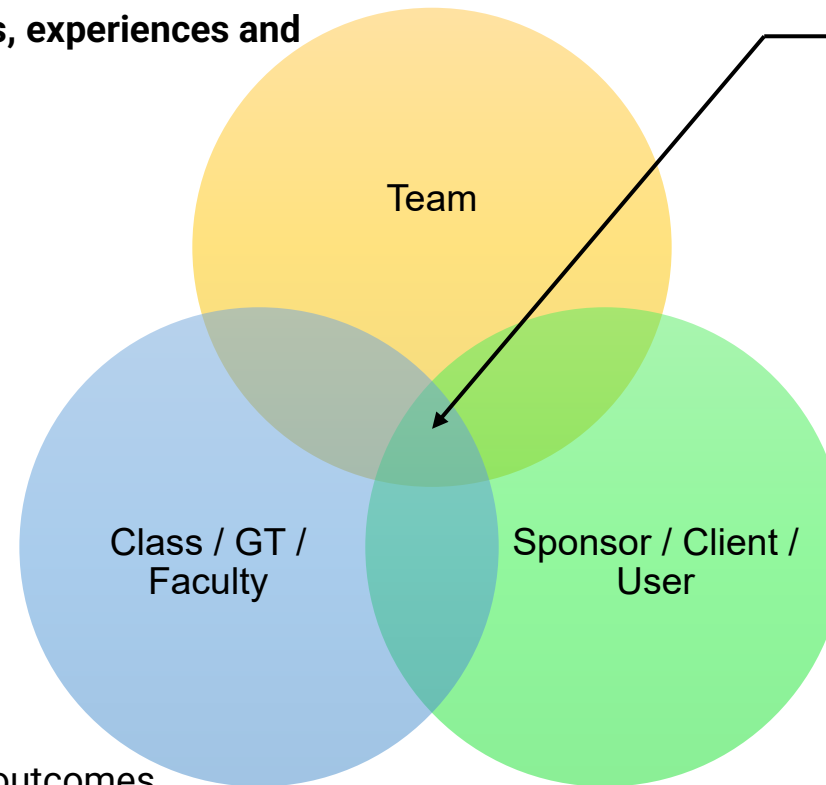
SPONSOR

1. WHY – Discuss sponsor motives for working with you
 - Build product
 - License technology
 - Recruit/hire
2. List sponsor wish list – minimal and stretch goals
3. Identify critical elements of the project where your team can add value

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Team strengths
Semester timeframe
Critical value

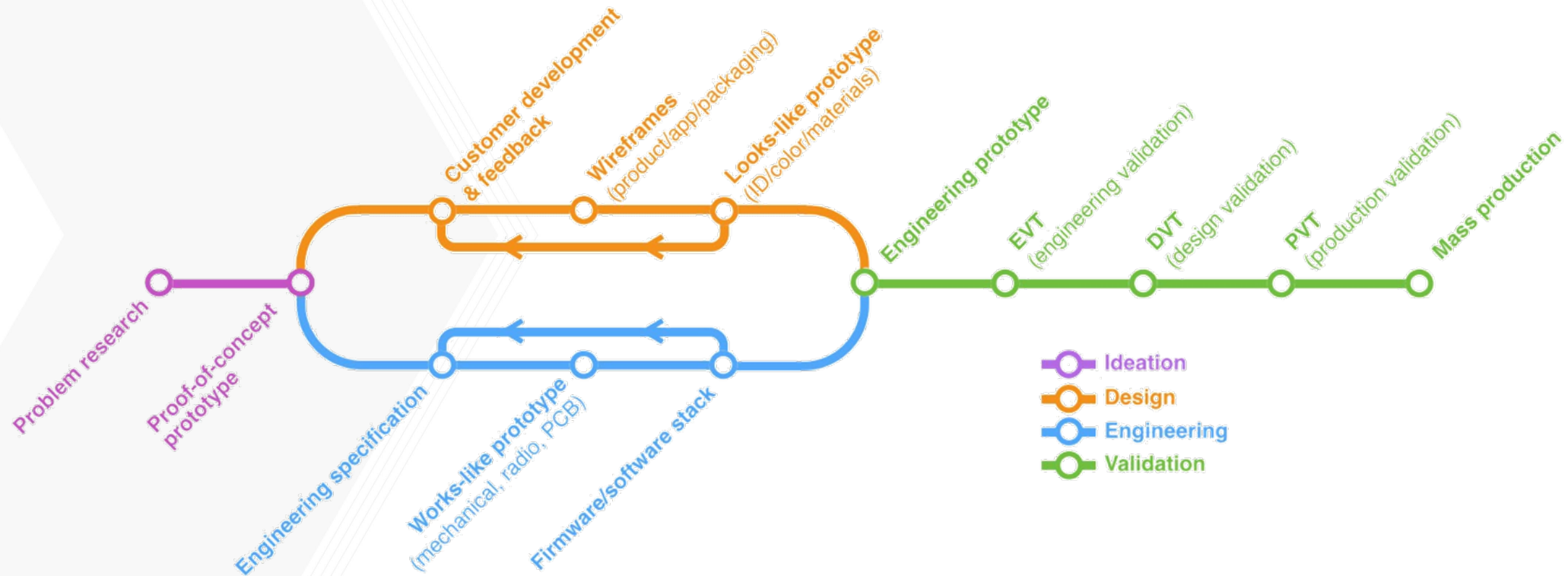
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Design your *product*... ... not your *prototype*



Prototyping is a means to an end and not an end in itself!